

## DKEX Centrifugal Fans

### High-performance ATEX-compliant fan for hazardous environments

- Compact design
- High-performance
- Installed in any position
- ATEX certified according to ATEX 2014/34/EU

[Find more details in our online catalogue.](#)



#### Designed for demanding environments

**Durably designed** for demanding environments, the DKEX series of explosion-proof centrifugal fans are commonly used in **battery charging rooms, fume cupboards** or other **high-risk environments**.

#### High performance

The DKEX fan combines a **compact design** with a **high-performance** forward-curved radial impeller paired with **reliable** ATEX-rated AC motor.

#### Flexible installation

DKEX fans can be installed in **any position** and their **compact design** makes them easily to fit in all different applications.

#### Explosion-Proof

DKEX series is classified as **II 2 G Ex eb h IIB+H<sub>2</sub> T3 Gb**.

Intended to use in explosion **zone 1 and 2** for extracting **gases** and **mixes** of groups **IIA, IIB** and also **hydrogen (H<sub>2</sub>)**, with temperature **classes T1, T2 and T3**. Comply with EN 60079-7:2015, EN 14986:2007, EN 60079-0:2012.

## Features

### Casing

The casing of DKEX is made from **galvanised sheet steel**, corrosion **class C3** with a **copper inlet cone**. Motor of the unit mounted on **detachable lid** to simplify service and maintenance. DKEX fans are equipped with **connection cable** to connect to the **ATEX rated external connection box** (separate accessory) for wiring on site.

### Impeller

**DKEX** fans use single inlet **radial impellers** with **forward-curved** blades. Made of **lightweight, galvanised** sheet steel. Impellers **dynamically balanced** and paired with corresponding external rotor motors.

### Motor

**DKEX** fans are equipped with ATEX certified, voltage controllable, **AC** external rotor motors with **long-life** ball bearings.

### Motor protection

DKEX fans have **integrated** PTC (Positive Temperature Coefficient) protective circuits with **external leads** for connection to a motor protection device (separate accessory). We recommend to use **UEK230E motor protection**, certified according to ATEX directive 2014/34/EU.

### Control

Fans are controlled by **5-step** speed regulator as separate accessory. Speed regulation can be combined with timer, thermostat, hygostat, etc. by using wide range of electrical accessories.

### Mounting

**DKEX** fans can be installed **indoor** in **any position**. To avoid vibration transfer to the duct system we recommend to install **flexible connections** (accessory).

## Technical parameters

### Nominal data

Voltage (nominal)	400	V
Frequency	50	Hz
Phases	3~	
Input power	1,803	W
Input power kW	1.803	kW
Input current	3.85	A
Impeller speed	1,389	rpm
Air flow	max 1.079	m <sup>3</sup> /s
Minimum static back pressure	300	Pa
Temperature of transported air	max 40	°C
Max temperature of transported air, when speed controlled	40	°C

### Sound data

Sound pressure level at 3m (20m <sup>2</sup> Sabin)	61	dB(A)
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### Protection/Classification

Enclosure class, motor	IP44
Insulation class	F
Explosion proof marking	II 2 G Ex eb h IIB+H <sub>2</sub> T3 Gb
Certificate	Presafe 17ATEX9970X

### Data according to ErP

ErP ready	Not ErP relevant
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### Ambient and duct temperature

Ambient and duct temperature	-20 to 40	°C
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### Dimensions and weights

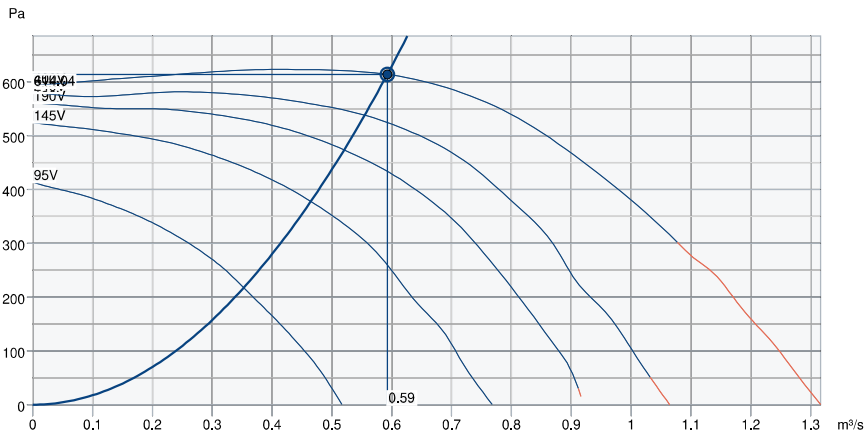
Weight	35.3	kg
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### Others

Motor type	AC
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**Performance**

**Performance curve**

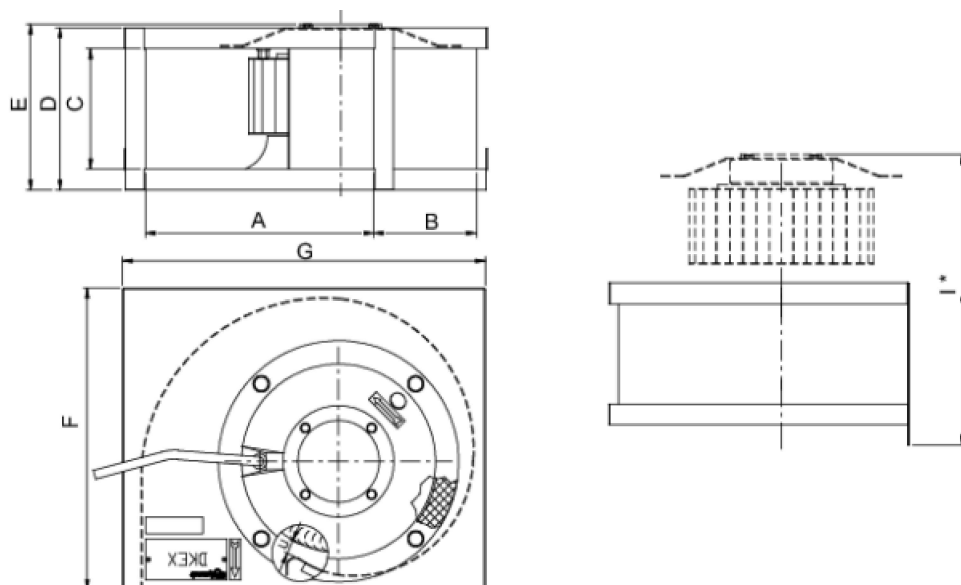


**Hydraulic data**

Required air flow	0.59 m³/s
Required static pressure	614 Pa
Working air flow	0.59 m³/s
Working static pressure	614 Pa
Air density	1.204 kg/m³
Power	920.7 W
Fan control - RPM	1,448 rpm
Current	2.89 A
SFP	1.554 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	69	79	71	70	78	77	74	70	84
Outlet	dB(A)	62	78	76	77	78	77	75	67	85
Surrounding	dB(A)	42	47	56	56	65	62	58	50	68
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	61
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	47

## Dimension

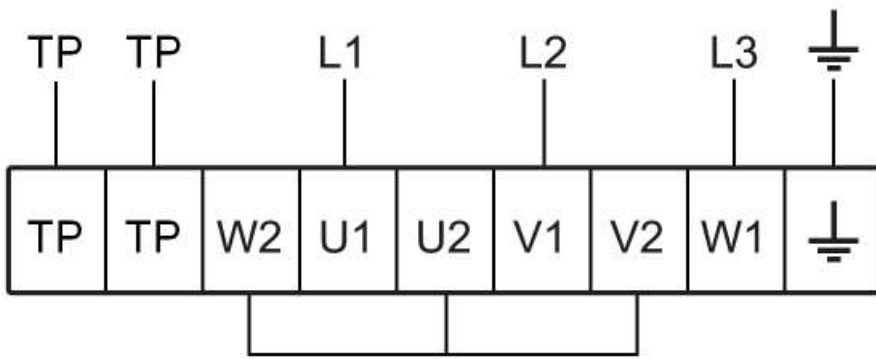


I\* = Minimum dimensions to lift the engine

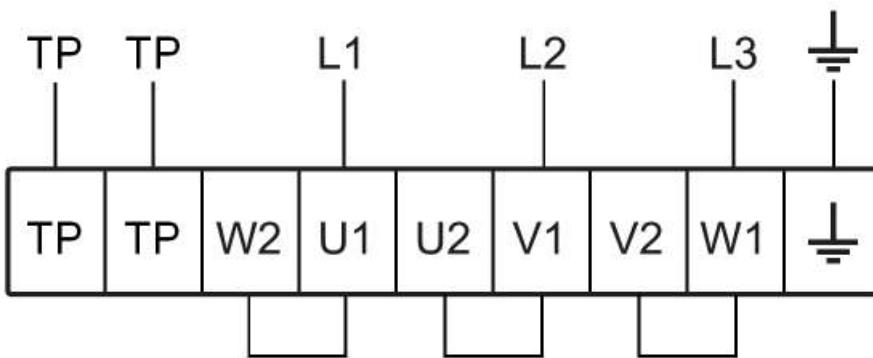
	A	B	C	D	E	F	G	I*
DKEX 225	280	133	145	196	196	367	445	337
DKEX 250	315	154	165	216	243	410	492	375
DKEX 280	357	169	180	230	248	453	547	413
DKEX 315	400	188	203	254	276	515	615	465
DKEX 355	450	213	227	278	320	574	689	489

Wiring

400V 3~ (Y)



230V 3~ (D)



## Accessories

- R-DK4 KT Transformer (302568) (6051)
- RTRD 7 speed control Systemair (5943)
- U-EK230E Motor protection (30199)
- USE 315 Flexible connection (1599)
- REV-5POL/07-7,5kW R/Y (33980)
- RTRDU 7 Speed contr. Systemair (5947)
- ISE 280/315 Flexible connect. (5109)
- SG-EX 315 Guard grill (31384)

## Documents

- IMO(CE)\_DKEX-KTEX.pdf
- DNV\_22\_UKQAN\_44923\_ISSUE\_1-SIGNED\_EX\_FANS.PDF
- Presafe 17 ATEX 9970X\_KTEX\_DKEX.PDF
- Presafe\_Production Quality\_16 ATEX 8871Q\_issue 3.PDF